

REMARKS

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for carefully considering this application.

Summary of Previous Filings

On December 18, 2008, the Examiner issued a Non-Final Office Action, rejecting claims 9, 11-13, and 15-20 under 35 U.S.C. § 102(b) as being anticipated by any of Chemical Abstracts 136:7165, Chemical Abstracts 136:7164, Chemical Abstracts 136:7161, Chemical Abstracts 136:7160, or Chemical Abstracts 136:7159 (collectively referred to as “the Chemical Abstracts”).

On March 17, 2009, Applicant submitted a response to the Non-Final Office Action, amending claim 9 to recite that “at least 30 mol % of the acid component is an aromatic tetracarboxylic acid dianhydride” represented by a given formula, which may be referred to as “3-OPDA”. While each of the Chemical Abstracts cited by the Examiner teach the use of 4-ODPA as the primary acid component, 3-ODPA is only taught by the cited references as an optional tetracarboxylic dianhydride, with no appropriate amounts taught, that can be used “so long as [it does] not spoil the character and physical property of polyimide itself.” In addition to showing why amended claim 9 is patentable under § 102, in the effort of expediting prosecution, Applicant also included arguments and a Declaration showing why claim 9 was not obvious.

Thus, while Applicant believes (and Examiner has since stated in the Advisory Action) that the recitation of “30 mol%” overcomes the § 102 rejection, the Examiner subsequently issued a Final Office Action on June 15, 2009, reasserting the § 102 rejection over

the Chemical Abstracts references. In that Action, the Examiner also rejected claim 9 under 35 U.S.C. § 112, ¶ 1 for lack enablement of the limitation “at least 30 mol%.”

In response to the Final Office Action, Applicant filed a response on August 11, 2009, providing (1) a showing of the teachings in the specification that provided sufficient enablement of the “at least 30 mol% rejection”; (2) a reassertion of the patentability of the claims over the § 102 rejection; and (3) a reassertion of the non-obviousness of the claims along with a second Declaration. No claims were amended in this response.

The Examiner subsequently issued an Advisory Action stating (1) that the § 112 rejection was maintained because the specification only provided enablement for “at least 1 mole%” and (2) that because the claims have been amended, the § 102 rejection was replaced by a § 103 rejection. Applicant addresses each of these points in turn, and also responds to the Examiner’s comments regarding the Declaration in an effort to expedite allowance of this application.

(1) Rejection under 35 U.S.C. § 112

Applicant directs the Examiner to page 11 of the specification. Page 11, lines 4-7 state: “Of the acid components, the total of the compounds represented by formula (I) is preferably not less than 1 mol%, more preferably not less than 30 mol%, specifically not less than 50 mol%.”

Thus, the Examiner’s position is in clear error as the 30 mole percent requirement is clearly taught in the specification, such that one skilled in the art would be enabled to use aromatic tetracarboxylic acid dianhydride as at least 30 mole percent of the acid component in the polymerization. Thus, Applicant believes the disclosure, when filed, contained

sufficient information regarding the subject matter of the claims (use of the aromatic tetracarboxylic acid dianhydride as at least 30 mole percent of the acid component) as to enable one skilled in the pertinent art to make and use the claimed invention. *See* MPEP § 2164.01.

As shown, the Examiner was incorrect in maintaining this rejection under § 112, because the specification as filed provides the appropriate enablement to claim 9. Further, because the § 112 rejection should have been withdrawn and because the Examiner admits that the § 102 rejection is overcome by claim 9, Applicant has overcome all rejections set forth in the Final Office Action dated June 15, 2009. Therefore, the basis for the Advisory Action was improper, and a new action, either in the form of an allowance or a new action should be given.

(2) Asserted Rejection under 35 U.S.C. § 103

As shown by the above, the Examiner's rejection under § 103 was asserted for the first time in the Advisory Action. However, Applicant respectfully asserts that assertion of this rejection for the first time in an Advisory Action is improper. More specifically, Applicant asserts that the Examiner's attempt does not meet the requirements of MPEP §§ 706.02(j)-(m) and 2142, setting forth the legal requirements of a § 103 rejection and the requirement that the Examiner make a *prima facie* case of obviousness before the burden shifts to Applicant.

However, in response to the Examiner's comments regarding the Declaration of Declaration of Hiroyasu Inagaki submitted on August 11, 2009, Applicant submits the following. As noted by the Examiner, upon the use of 30 mol% of 3-ODPA, "the most unexpected results" in solvent solubility can be seen. However, the Examiner incorrectly focuses first on the difference between Examples 1 and Example 2, and second on the difference between Example 4 and Example 5. The appropriate focus should compare Examples 1-2 to

Examples 3-5. Examples 1-2 (showing 0 and 10 mol% 3-ODPA) show a rather low solvent solubility and each of Examples 3-5 (showing 30, 50, and 100 mol% 3-ODPA, each falling within the claimed limitation of at least 30 mol%) show an unexpectedly good solvent solubility, as compared to Examples 1-2 that do not fall within the scope of the claims. Further, as for the minor difference in solvent solubility of THF only between Example 4 (50 mol% 3-ODPA) and Example 5 (100 mol% 3-ODPA), the 0.1 wt% difference is likely due to experimental error and does not constitute any trend in decreasing solvent solubility, particularly considering the increased solubility for NMP, DMAc, and γ -BL. Thus, because the Chemical Abstract references suggest that 3-ODPA might negatively effect the physical properties of the resulting imide, and (2) the experimentation of the inventors of the present application has found an unexpectedly good improvement in solvent solubility for 3-ODPA amounts of at least 30 mol% (as compared to amounts less than 30 mol%), allowance of the claims is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number [17195/002001]).

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Respectfully submitted,

By 

Jonathan P. Osha
Registration No.: 33,986
OSHA · LIANG LLP
909 Fannin Street, Suite 3500
Houston, Texas 77010
(713) 228-8600
(713) 228-8778 (Fax)
Attorney for Applicant

Attachments